

PATENT COOPERATION TREATY

PCT

REC'D 09 MAY 2006
INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 73747-78311	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/SE2005/000036	International filing date (<i>day/month/year</i>) 17-01-2005	Priority date (<i>day/month/year</i>) 16-01-2004
International Patent Classification (IPC) or national classification and IPC See Supplemental Box		
Applicant First Aid Card Enterprises AB et al		

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>10</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of <u>18</u> sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>																								
<p>4. This report contains indications relating to the following items:</p> <table> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>	<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input checked="" type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application
<input checked="" type="checkbox"/>	Box No. I	Basis of the report																						
<input type="checkbox"/>	Box No. II	Priority																						
<input checked="" type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability																						
<input type="checkbox"/>	Box No. IV	Lack of unity of invention																						
<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement																						
<input type="checkbox"/>	Box No. VI	Certain documents cited																						
<input type="checkbox"/>	Box No. VII	Certain defects in the international application																						
<input checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application																						

Date of submission of the demand 15-11-2005	Date of completion of this report 31-03-2006
Name and mailing address of the IPEA/SE Patent- och registreringsverket Box 5055 S-102 42 STOCKHOLM Facsimile No. +46 8 667 72 88	Authorized officer Peter Hedman /OGU Telephone No. +46 8 782 25 00

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/SE2005/000036

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: Cover sheet

International patent classification (IPC)

H04Q 7/38 (2006.01)

H04Q 7/32 (2006.01)

G06K 17/00 (2006.01)

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/SE2005/000036

Box No. I Basis of the report

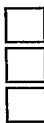
1. With regard to the **language**, this report is based on:



the international application in the language in which it was filed



a translation of the international application into _____, which is the language of a translation furnished for the purposes of:



international search (Rules 12.3(a) and 23.1(b))



publication of the international application (Rule 12.4(a))



international preliminary examination (Rules 55.2(a) and/or 55.3(a))

2. With regard to the **elements** of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):



the international application as originally filed/furnished



the description:

pages _____

pages* 1 - 13received by this Authority on 15 - 11 - 2005 as originally filed/furnished

pages* _____

received by this Authority on _____



the claims:

pages _____

as originally filed/furnished

pages* _____

as amended (together with any statement) under Article 19

pages* 14 - 18received by this Authority on 15 - 11 - 2005

pages* _____

received by this Authority on _____



the drawings:

pages 1 - 5

as originally filed/furnished

pages* _____

received by this Authority on _____

pages* _____

received by this Authority on _____



a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. The amendments have resulted in the cancellation of:



the description, pages _____



the claims, Nos. _____



the drawings, sheets/figs _____

the sequence listing (*specify*): _____any table(s) related to the sequence listing (*specify*): _____

4. This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).



the description, pages _____



the claims, Nos. _____



the drawings, sheets/figs _____

the sequence listing (*specify*): _____any table(s) related to the sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/SE2005/000036

Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

the entire international application

claims Nos. 4 - 9

because:

the said international application, or the said claims Nos. _____ relate to the following subject matter which does not require an international preliminary examination (specify):

the description, claims or drawings (*indicate particular elements below*) or said claims Nos. _____ are so unclear that no meaningful opinion could be formed (specify):

the claims, or said claims Nos. _____ are so inadequately supported by the description that no meaningful opinion could be formed (specify):

no international search report has been established for said claims Nos. 4 - 9

a meaningful opinion could not be formed without the sequence listing; the applicant did not, within the prescribed time limit:

furnish a sequence listing on paper complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Preliminary Examining Authority in a form and manner acceptable to it.

furnish a sequence listing in electronic form complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Preliminary Examining Authority in a form and manner acceptable to it.

pay the required late furnishing fee for the furnishing of a sequence listing in response to an invitation under Rules 13ter.1(a) or (b) and 13ter.2.

a meaningful opinion could not be formed without the tables related to the sequence listings; the applicant did not, within the prescribed time limit, furnish such tables in electronic form complying with the technical requirements provided for in Annex C-bis of the Administrative Instructions, and such tables were not available to the International Preliminary Examining Authority in a form and manner acceptable to it.

the tables related to the nucleotide and/or amino acid sequence listing, if in electronic form only, do not comply with the technical requirements provided for in the Annex C-bis of the Administrative Instructions.

See Supplemental Box for further details.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/SE2005/000036

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: Box III

Amended claims 4 -9 do not meet the requirements of Article 5 and 6 PCT in that the matter for which protection is sought is not clearly defined.

According to claims 4-9, a public service access point and a service provider receive a set of data from a mobile terminal. It is not clear what the features of claims 4-9 convey regarding the invention and the effect of transmitting a set of data to a public access point and to a service provider. Consequently, the claims do not fulfil the requirement of Article 6 PCT.

Additionally, the description fails to describe the effect of the features of transmitting the set of data. Accordingly, a person skilled in the art is not enabled to convey and carry out the invention set forth in claims 4-9. Therefore, the description does not disclose the invention sufficiently clearly and completely (Article 5 PCT).

Consequently, since no search report has been established for the apparatus according to these claims, no examination can be executed for these claims.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/SE2005/000036

Box No. V **Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	<u>1-3, 10-20</u>	YES
	Claims	_____	NO
Inventive step (IS)	Claims	_____	YES
	Claims	<u>1-3, 10-20</u>	NO
Industrial applicability (IA)	Claims	<u>1-3, 10-20</u>	YES
	Claims	_____	NO

2. Citations and explanations (Rule 70.7)

The claimed invention

The present invention solves the problem which arise from emergency personnel or medical staff that do not have access to identity and medical information of an injured person.

The following document was cited in the International Search Report:

D1: WO 0213132 A1
 D2: GB 2360862 A
 D3: US 20030200227 A1
 D4: WO 0241237 A1

D1 discloses an apparatus and a method for identifying an article and retrieving stored data about an article or a person. A database (12) can be accessed by individuals from communication terminals, the individuals inputting or updating their own personalised information thereon, (page 8 lines 22-24). The database includes both identities and personalised information, (page 8 lines 29-page 9 line 3). The database is in communication with at least one mobile communication terminal (17). The terminal has reading means (3), adapted to determine and communicate the identity of a transponder (1), (abstract), carried by an individual, (page 15 line 13). The database is adapted to match the identity of the transmission provided by the mobile communication terminal to the personalised information, (page 12 lines 27-28). Personalised information and identification is provided to and, is displayed on the mobile communication terminal, (page 13 line 6). The database may be updated with individualised information remotely by telephone or by direct access through a networked computer (page 8, line 20-28).

.../...

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: Box V

1 (3)

D2 relates to a system comprising remotely readable identification-data storage means. Data stored on these means is read and analysed in a processing means and output information is generated in response to the processing (see page 4, line 7 - page 7, line 24).

D3 describes a system for obtaining information from vehicles. A tag located on the vehicle remains dormant until activated. Activation is triggered when the tag receives a signal from a transceiver. The tag responds by returning an electronic identification number (EIN) to the transceiver, which forwards the EIN to a central database. Finally the tag returns to a dormant state (see abstract; paragraph [0014]-[0016]; [0029]-[0032]).

D4 discloses a system for retrieval of personal information, comprising radio frequency identification (RFID) tags, a scanner device and an information database for identification and retrieval of personal records of an individual (see page 3, line 32 -page 9, line 3).

D2-D4 represent prior art describing subject matter which differs from the invention as claimed in claims 1-20. These documents therefore have not been taken into consideration in this report.

Document D1 is considered to represent the closest prior art.

The invention according to claims 1, 2 and 18-20 differs from the apparatus in D1 in that there are two databases instead of one. There are known advantages with separating a database into separate interconnected parts, wherein each part have different purposes. In this case data is being stored and updated in one database and retrieved from another database. In D1 storing/updating and retrieval of personalised data is being made via different interfaces. By utilising different interfaces for different functions, a database may be experienced as consisting of virtually different databases. Furthermore, to a person skilled in the art, it is an obvious constructional change to separate a database into two distributed, sub-divided or separated databases if a particular application, such as the one suggested in the present international application, requires that.

.../...

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: Box V

2 (3)

The change can only be regarded as inventive, if the separation presents unexpected effects or properties in relation to the rest of the range. However, no such effects or properties, neither in association to the interfaces, nor to the interconnections, are indicated in the application.

In addition, the provisioning of user-friendliness and storage of exchangeable information as well as allowing for simultaneous access is common for databases which are developed for operation in this particular context. Also reliable operation and quick response to information is obvious tasks to fulfill for a person which is skilled in the art and active in this technical field. It is not defined, neither in the claim, nor in the description, how these advantages are achieved. Consequently, claim 1 does not meet the requirements of Article 6 PCT in that this particular matter for which protection is sought is not defined (see box VIII). The characteristical part of claim 1 is therefore considered only to comprise desired requirements which are commonly desired and fulfilled by way of utilising common knowledge in the field of knowledge databases.

Consequently, claims 1, 2 and 18-20 are considered to not involve an inventive step.

The mobile communication terminal according to claim 3 differs from D1 in that D1 fails to suggest that the terminal is adapted for manual input of notifications, which are communicated via a third database to a hospital. The notifications are independent of the received information.

Due to this feature, the hospital has information on individuals in an accident.

However, it is common practice that assisting personnel inform the hospital about the types of injuries of individuals. This information may be transmitted via conventional communication means. One selection, obvious to person skilled in the art, is that the information is transmitted as an SMS to the hospital. The purpose of the third database is unclear since the claim simply seems to describe manual input followed by transmission of information (see box VIII).

Therefore, the feature of claim 3 does not involve an inventive step.

..../...

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/SE2005/000036

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: Box V

3 (3)

The features of claims 10-14 are known from D1.

The claims 15-17 are considered to involve particular detail executions obvious to a person skilled in the art.

Consequently, the invention according to claims 1-3 and 10-20 is not considered to involve an inventive step.

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

The amended claim 1 does not fulfil the requirements of clarity. The first and the second databases are defined by reference to desirable characteristics, namely that the first database is optimised for provision of user-friendliness, storage of exchangeable personalised information and allowing for simultaneous by a large number of individuals, and the second database is optimised for reliability in operation and quick response. The claim covers all apparatuses having these characteristics or properties, whereas the application provides support within the meaning of Article 6 PCT and disclosure within the meaning of Article 5 PCT for only a very limited number of such apparatuses. In the present case, the claims so lack support, and the description so lacks disclosure, that no meaningful search over the whole of the claimed scope is possible.

The purpose of the third database, which is mentioned in claim 3, is unclear. No function which is usually associated with databases can be identified in the claim.

In claim 8, which refers to claim 6, it is referred to triggering means. Triggering means are, however, not mentioned until in claim 7. Therefore, claim 8 should be amended to refer to claim 7 instead.

Apparatus and method for storing and distributing information in an emergency situation

Technical field of the invention

5 The present invention relates to an apparatus, method and computer program for identification of individuals, storage and distribution of individualised information concerning specific treatments, desires and identification in case of an emergency situation, wherein databases containing predetermined personalised information are adapted to match a provided identity with the personalised information so as to assist personnel during an accident, medical or emergency situation.

10

Background of the invention

15 A large number of ideas are currently available generally relating to the need for emergency medical staff, physicians and paramedics to be informed about the needs of their patients. Various means are used today in order to provide them and family members of patients with information regarding their health history and, if applicable, specific medical desires of patients. Some people who suffer from chronic illnesses, such as haemophilia, epilepsy or extreme allergy wear bracelets, necklaces, badges or wristwatches that symbolise a specific chronic disease. These people may 20 need special attention or be given priority to by paramedics during an emergency situation. However, many people who suffer from one of the above illnesses may not want to display this fact publicly, and therefore they often tend to refuse wearing the symbolising necklace or badge for instance.

25

25 In addition to that, a large number of people carry discreet paper notes in their wallets or purses with medical information. The medical information may be combined with information regarding their willingness or ability to donate organs or tissue for transplantation or medical purposes, possibly with specific limitations. That is an alternative way of displaying needs for specific treatments and individual desires in

case of an emergency situation. However, a discreet paper note can be difficult to find if it even does exist.

When paramedics or emergency medical staff arrive at a person who has been involved in an accident or an emergency situation, the medical staff must act quickly and without much hesitation. It is crucial that the staff quickly determines a correct diagnosis and applies appropriate treatment in order to minimise injuries or even save lives. In particular, that may be the case when a person is either unconscious or has difficulty in communicating their physical condition. Sometimes even basic medical treatment can be difficult in such a situation. If emergency information and medical history were readily available and easily accessible during a majority of accidents, not the least on the road at the scene of a traffic accident or at home during a residential emergency, responding medical staff would be able to give appropriate treatment with enhanced certainty to persons involved in accidents. The result of such available information would be minimised consequences of accidents and more lives saved.

Moreover, during a medical emergency, medical staff is sent to the accidental scene immediately after an emergency call has been made. Even if the information about identities and specific requirements of people involved in the accident could be available, the emergency medical staff does not have the time to wait for information to be gathered about a possibly involved person's medical history or current medical condition. However, establishing a correct diagnosis and applying the appropriate treatment is essential, but it requires the emergency medical staff to know whether the patient suffers from any chronic illnesses, whether the patient has any allergies, and other relevant information in the patient's medical history. As important as knowledge about any illnesses, is the opposite knowledge that a patient is entirely healthy, so as to be able to treat the patient without limitations and without any risk for mistreatment. A further complication is that the patient himself or herself often is incapacitated and cannot communicate information about his or her

medical history to the emergency medical staff, or to the person who makes the emergency telephone call, a person who usually has little or no medical training.

5 Hence, there is no doubt a continuing need for collecting, storing and making valuable and correct information including identification of an injured person readily available to medical staff, emergency personnel and others in case of an accident, emergency or other related medical situation.

Summary of the invention

10 The object of the present inventions is to achieve this aim, and simultaneously alleviate at least some of the drawbacks and shortcomings of prior art in the same technical field.

15 The object is accomplished by means of an apparatus and method for storage and distribution of individualised information concerning specific treatments, desires and identification in case of an emergency situation, comprising

20 a first database, preferably a web-interfaced database, which is accessed by individuals from communication terminals, the individuals inputting or updating their own personalised information thereon, the first database including both identities and personalised information,

25 a second database, being adapted to retrieve information from the first database, which second database is in communication with at least one mobile communication terminal, the terminal having reading means adapted to determine and communicate to the second database the identity of a transponder carried by an individual,

the second database being adapted to match the identity of the transponder provided by the mobile communication terminal to the personalised information retrieved from the first database,

30 personalised information and identification is provided to and is displayed on the mobile communication terminal so as to assist personnel during an ac-

15-11-2005

cident, medical or emergency situation,
characterised in that

the first database is optimised for provision of user-friendliness, storage
of exchangeable personalised information and allowing for simultaneous access by a
5 large number of individuals, whereas the second database is optimised for reliability
in operation and quick response.

The first and second databases could be either separate databases or instances or
parts of the same database. This is a constructional variety that is to be determined
10 by the skilled person in database management in accordance with the requirements
of the particular application under consideration. An advantage of the present invention
is that it provides rapid access for paramedics, physicians and emergency medical
staff after an emergency call to a person's current medical information and identification,
15 both in the form of images and text in emergency situations and other
kinds of medical or accidental situations.

Another advantage of the present invention is that it uses already available storage
and/or communication means, such as mobile phones and facilities for mobile communication. These facilities in combination with a database arrangement enables
20 distribution of necessary information. The databases contain and distribute current
personal medical information that is easily identifiable when people are involved in
for instance a traffic accident. Transponders to be identified could be integrally constructed
with credit cards, necklaces, badges, rings etc, held by a person to be identified or treated. In various emergency response situations, such identifying devices
25 are carried or held by the person involved in an accident and subjected to treatment,
and the information can easily be found and read by emergency response or medical
personnel. Moreover, conceivable reading means could be contained in vehicles or
various gates to be passed when checking in an aircraft or a hotel for example.

15 -11- 2005

The present invention provides involved personnel with the stored and updated medical information records that allow emergency medical personnel to faster begin appropriate medical treatment based on current medical information of incapacitated persons. Portable data storage device of communication terminal contains or at least 5 displays current medical information specific to the person wearing the data storage device or communication terminal. A mobile communication terminal could be any kind of handheld device that accesses and displays the medical information storage means in the database arrangement. Electronic messages of any kind, such as SMS, MMS, electronic mail or other notification containing an unambiguous identity of a 10 person. The message is then a request to retrieve information stored in records associated with the mobile communication terminal according to the invention.

A database arrangement in accordance with the present invention, is preferably in large installations associated with a number of distributed databases for co-ordination of the medical information records on a regional, national or international 15 scale. The arrangement also includes the ability for any user, who has proven his identity when correctly logging on to the system, to update his or her own personal medical records. This ensures that the records contain current personal medical information, and the information is either retrievable by communication terminals or 20 is transmitted in order to record the medical information on the portable data storage device associated with terminals.

The present invention will be most appreciated by skilled persons in the art, for its ability to be used for collecting information and information updates from users. 25 The information will be distributed on request via a storage database in association with a mobile communication terminal to emergency personnel in order to assist them in better handling emergency situations in a fast, efficient and appropriate manner.

Brief description of the drawings

The above and further features, advantages and benefits of the present invention will be apparent upon consideration of the following detailed description, taken in conjunction with the accompanying drawings, in which like reference characters and figures refer to like parts throughout, and in which:

5

Fig 1 illustrates a schematic view of the apparatus in accordance with the present invention.

10

Fig 2 is a flowchart depicting the method for updating and transmitting information sequentially according to the invention.

Fig 3 is a flowchart that depicts the display and distribution of information in accordance with the present invention.

15

Fig 4 depicts an apparatus in accordance with a second embodiment of the present invention.

20

Fig 5 is a flowchart of the functionality of the second embodiment according to the present invention.

Detailed description of embodiments

The following description is of the best mode presently contemplated for practising the invention. The description is not to be taken in a limiting sense, but is made merely for the purpose of describing the general principles of the invention. The scope of the invention should be ascertained with reference to the issued claims.

30

Fig 1 illustrates a schematic view of the apparatus in accordance with the present invention. A central storage server or distributed database system 10 is able to communicate with either or both of distributed databases 20, 22 and external computer

5 terminals 50. The external computers terminals access a certain storage space with information to be input or updated, provided that the users authorise and authenticate themselves correctly. Connection is made via the Internet or any other global interconnecting network via connecting links. Conceivable links for use are various
wired and wireless transmission technologies, such as wireless access technology based on infrared, Bluetooth or wireless-LAN.

10 Connection means and methods used in association with the present invention will of course develop with new and emerging access technologies. The distributed data-
bases are bi-directionally connected with radio base stations 30, 32, 34 communicating directly with a number of mobile communication terminals 40-45. Moreover, the mobile communication terminals may communicate internally on peer-to-peer basis via radio frequency or other transmission technologies. This approach may be useful, especially in poor conditions for radio transmission, so as to provide sufficient
15 conditions for transmission of phone calls when transmission is crucial, i.e. when an accident has occurred. The basis may also be used also in other situations, such as for receiving status about a medical condition for a certain passenger on a flight.

20 In accordance with one embodiment of the invention medical staff transmits collected emergency information to the database 95, and reference is made to Fig 1 in conjunction with Fig 4. The database may be operated by any host. Also a user of a mobile communication terminal may transmit the emergency information to a central storage, the software optionally transmits the gathered information wirelessly via a mobile communication network or through the Internet or a direct modem
25 connection with the mentioned database. In an alternate embodiment, software generates a file which may be transmitted as an electronic mail attachment to the central storage. Data could be updated and sent to the database manually or automatically, i.e. at regular intervals.

The emergency personnel would obtain the emergency information stored in the storage means of for instance the mobile communication terminal, possibly by using a handheld computer or by using a so-called smart phone to access the information themselves. Alternatively, the information can be obtained by accessing the information stored locally or by accessing the database or the central storage server depending on the physical database arrangement. Alternatively, information is received from the storage means of the terminal which has accessed the information stored locally or accessed the database at the central storage server. Medical staff and other people arriving at for example a traffic accident will be assisted in both identifying and sorting prioritising injured people in accordance with their actual needs, such as giving a person with a heart condition priority over a another person with similar injuries, but without the enhanced risk for having a heart attack. In addition to the previously mentioned advantages, the invention is beneficial since people without extensive medical training or education receive support and assistance in managing an accidental situation. Such assistance may in certain cases be decisive for people to have the courage to prioritise and help people in an emergency situation, since the risk for making devastating mistakes is reduced.

With particular reference to Fig 2, a flowchart depicts the method for transmission of information sequentially in order to have up-to-date information stored. The method starts (S10) in that the information content of distributed databases or alternatively from the central storage database 10 is retrieved (S20) and so is locally stored information (S30). The actuality of information is compared (S40) with that of the mobile communication terminal 40-45 and distributed databases 20, 22 at regular intervals or as a result of a user initiative. Comparison utilising the respective time stamps of information content is a conceivable way of measuring the actuality. The comparison is made by means of state of the art mobile telecommunication technology via the radio base stations, through which the mobile communication terminals communicate with the central and distributed data bases. If different versions exist (S50), the information is updated (S60) so as to have the last version

stored in the central storage database (S80) or in a local storage database (S70). Otherwise, the sequence continues and ends (S90), whereby a new sequence may begin on user command or at regular or user influenced intervals.

5 With reference to Fig 3, a sequence for displaying and distributing information is depicted. The sequence begins (S100) in that an inquiry is made whether the activation (S110) has been made, either on user command, or resulting from an activation of a triggering means or even at regular intervals. In case no activation has been made, the sequence returns, and otherwise, an up-to-date version of data is retrieved
10 (S120), conceivably from a distributed database. The retrieval is followed by transmission and distribution (S130) of relevant information via any means for transmission, such as the mobile communication network, a wired network, peer-to-peer or infrared to all associated terminals. Moreover, the information is displayed (S130) on a display of the mobile communication terminal. After having distributed and
15 displayed for a predetermined period of time, the sequence may returns to comparing actuality (S40) in Fig 2, and in association to that collecting, displaying and transmitting information to the distributed or central storage server. This ends the sequence (S140). A request is activated on user command, for instance by the triggering means, possibly a button, menu input or automatically as a result of activation of at least one accelerometer or gyroscopic means.
20

The step of collecting and transmitting the information could be made in a variety of ways. For example, in one embodiment, the user fills out a form provided over a computer network such as the Internet. The fields of the form are then transmitted to
25 a central storage server. According to another embodiment, the user types in the information directly in the mobile communication terminal, from which the information is transmitted over a mobile communication network to the central storage server.

With particular reference to Fig 4, an arrangement is illustrated which is particularly advantageous, in which a communication terminal 50 is used for providing a first database 60 with personalised data. The first database is optimised for providing individuals with user-friendliness, and the database allows for storage of exchangeable personalised information and for simultaneous access by a large number of individuals. The second database 70 retrieves updated information from the first database, and the second database is optimised for reliability in operation and quick response, although the data contents of the two databases are essentially equivalent. The first and the second databases are separated in Fig 4 for illustrative purposes, but the skilled person would appreciate that their functionality as well could be realised in one single database or alternatively as different instances or parts of the same database.

A mobile communication terminal 80 is adapted for allowing manual input, preferably by emergency personnel of notifications about the types and seriousness of injuries of individuals during an accident or emergency situation. These notifications are communicated over a wireless communication network including base stations 75 to a third database 95, from which related hospitals are notified in advance of the seriousness and details of an accident.

In an alternative embodiment, the mobile communication terminal 80 is mounted in a vehicle, preferably integrally. A reading means of the terminal is adapted to retrieve the identities of all passengers in the vehicle, from active or passive transponders 90 carried by the passengers. Identities are intermediately stored and ready for immediate transmission to a public service access point 96 in case of an accident. Transmission is then made of minimum set of data to the public service access point, such as position and identity of the vehicle. In addition to that transmission, a full set of data is transmitted to a service provider 98, such as the number of passengers in the vehicle, crash violence of the accident, number of airbags released, and activity of seat belt tensions. However, any obtained passive and active safety sensor

related data resulting from an accident or data collected from various computer systems of the vehicle are conceivable for transmission to the service provider.

Fig 5 illustrates a schematic diagram of the sequential operation of the database arrangement of Fig 4. The sequence starts (S210) in that an individual accesses and updates information (S220) on the first database 60. This information is then provided to the second database 70, the so-called the accident database. In case of an accident, the identity of involved persons is provided to this database (S230). The identity is matched (S240) with personalised information contained, in particular with respect to medical conditions, predetermined desires and needs of the involved persons. This personal information is transmitted (S250) to the mobile communication terminal of assisting emergency staff and displayed (S260) thereon. For an injured person (S270), an accident report can be inputted by for instance emergency staff. The accident report is than transmitted (S280) to the third database from which related hospitals may be informed in advance so as to make the relevant and correct preparations.

Software is utilised to obtain appropriate information from users and to communicate the information to and from the central storage server. A variety of different distribution means may be utilised to distribute the software. For example, the software may be made available for download from an interconnecting global computer network such as the Internet, distributed together with new credit cards, loyalty cards and programs, mobile telephones or other consumer goods. In order to create a distinctive brand profile in the automotive industry, software that enables collection, transmission and storage of specific individualised information according to the invention can be made of in association with purchase of cars and motorcycles or other vehicles. In particular automotive brands with car safety as a strong profile will be considered in the first place.

Regardless of the method used to transmit the information, the information may be updated periodically or on a real time basis. For example, the software may include a component that automatically updates information by connecting the central storage server, either directly or via the user's Internet service provider, and sending 5 updated files. In a further embodiment, the computer terminal of the user utilises information from other software applications, such as current status information, to automatically generate updated information files and transmit those updated information files to the central storage server. The central storage server could then access the database, find the corresponding data file, and overwrite the stored data 10 with the updated data.

A medical information record system according to the present invention is constructed in accordance with state of the art database technology, preferably using a distributed database system. A distributed medical record database system is preferable since it is designed to provide rapid access to critical patient medical data for 15 paramedics or other emergency personnel involved at an accident or emergency situation. The mobile communication terminal is part of the distributed medical record database system for generating, maintaining, and updating personal medical information records. Further to the mobile communication terminal, it may include 20 means to display a person's medical information and perform identification, so as to assist medical personnel or anyone who makes an emergency telephone call.

Medical information stored in the storage means includes information such as subscriber personal identification number, subscriber name, date of birth, picture for 25 identification, blood type, existing medical conditions, such as diabetes, epilepsy, etc, current medications, extreme sensitivities or allergies, such as nut or almond, wasp, bee, certain types of mite, birch trees, etc, allergies to medication, emergency contact phone number, physician contact number, organ donor status etc. Initial candidates for a portable data storage include elderly patients, patients with severe 30 allergic sensitivities, epileptic patients, patients with serious heart disease, diabetic

patients, etc. In the case of insurance information, also such data could be used, provided the person has given his or her consent to making use of such possibly very sensitive information.

5 While certain embodiments of the present invention have been shown and described it is to be understood that the present invention is subject to many modifications and changes without departing from the spirit and scope of the claims presented herein.

Claims

1. Apparatus for storage and distribution of individualised information concerning specific treatments, desires and identification in case of an emergency situation, comprising

5 a first database (60), preferably a web-interfaced database, which is accessed by individuals from communication terminals (50), the individuals inputting or updating their own personalised information thereon, the first database including both identities and personalised information,

10 a second database (70), being adapted to retrieve information from the first database, which second database is in communication with at least one mobile communication terminal (80), the terminal having reading means (not shown) adapted to determine and communicate to the second database the identity of a transponder (90) carried by an individual,

15 the second database being adapted to match the identity of the transponder provided by the mobile communication terminal to the personalised information retrieved from the first database,

20 the personalised information and identification is provided to and is displayed on the mobile communication terminal so as to assist personnel during an accident, medical or emergency situation,

25 **characterised in that**

the first database is optimised for provision of user-friendliness, storage of exchangeable personalised information and allowing for simultaneous access by a large number of individuals, whereas the second database is optimised for reliability in operation and quick response.

2. Apparatus according to claim 1, **characterised in that**

the first and second databases form parts or instances of one single database.

3. Apparatus according to claim 1, **characterised in that**

the mobile communication terminal is adapted for manual input of notifications about the types and seriousness of injuries of individuals during an accident or emergency situation, which notifications are communicated via a third database (95) to related hospitals.

5

4. Apparatus according to anyone of claims 1-3, **characterised in that**

10

the mobile communication terminal is mounted in a vehicle, whereby the reading means is adapted to retrieve the identities of all passengers in the vehicle, the identities being intermediately stored and ready for immediate transmission to a public service access point (96).

5. Apparatus according to anyone of claims 1-4, **characterised in that**

15

the mobile communication terminal is adapted to transmit a minimum set of data to the public service access point, such as position and identity of the vehicle, and in parallel transmit a full set of data to a service provider (98), such as safety sensor related data or other relevant data collected from any computer system of the vehicle.

20

6. Apparatus according to anyone of claims 4-5, **characterised in that**

the mobile communication terminal is integrally mounted in the vehicle.

25

7. Apparatus according to anyone of claims 4-6, **characterised in that**

transmission of intermediately stored identities is activated by a trigger-

ing means.

8. Apparatus according to of claim 6, **characterised in that**

the triggering means is an accelerometer, gyro or any other related means integrated with the vehicle, which is activated by physical violence result-

ing from an accident.

9. Apparatus according to claim 4, **characterised in that**

the public service access point is adapted to retrieve vehicle related information from any connected service provider (97), such as explosive or otherwise dangerous load, presence of accident influencing elements and type of vehicle.

10. Apparatus according to anyone of claims 1-2, **characterised in that**

the reading means is chosen from a group comprising an RFID reader, an IMEI number reader, the IMEI number being specified in GSM/GPRS standards, Bluetooth or Wi-Fi.

11. Apparatus according to claim 1, **characterised in that**

the transponder being active, such as provided with a battery or other power means.

12. Apparatus according to claim 1, **characterised in that**

the transponder being passive, such as a thin transponder tablet or tag.

20 13. Apparatus according to claim 1, **characterised in that**

the first database, which is accessed by individuals from communication terminals, is adapted to be receive input or updates from the individuals via mobile communication terminals.

25 14. Apparatus according to anyone preceding claims, **characterised in that**

the mobile communication terminal is adapted to provide access to and retrieve information to be displayed from an existing medical record database system.

15 -11- 2005

15. Apparatus according to anyone preceding claims, **characterised in that**

connection between mobile or stationary communication terminals and databases is established via at least one radio base station (75) used primarily for establishing connections between mobile telephones in a communication network.

5

16. Apparatus according to anyone of preceding claims, **characterised in that**

connection is established for information updates in a wireless communication network, such as wireless-LAN, so-called hotspot, wireless dial-up access service or Wi-Fi access location.

10

17. Apparatus according to claim 15, **characterised in that**

the radio base station is a communication terminal with which connection is established peer-to-peer via radio frequency transmission, such as Bluetooth, or via transmission of infrared signals.

15

18. Method for storing and distributing individualised information concerning specific treatments, desires and identification in case of an emergency situation, the method including the steps of:

20

individuals accessing a first database (60) from communication terminals (50) for inputting or updating personalised information stored on the database, the first database including both identities and personalised information,

a second database (70) retrieving information from the first database and communicating with at least one mobile communication terminal (80), the terminal having reading means (not shown) for determining and communicating to the second database the identity of a transponder (90) carried by an individual,

matching on the second database the identity of the transponder provided by the mobile communication terminal to the personalised information retrieved from the first database,

25

characterised by

providing to and displaying personalised information and identification on the mobile communication terminal so as to assist personnel during an accident, medical or emergency situation.

5 19. Method according to claim 18, **characterised by**

forming the first and second databases as parts or instances of one single database.

10 20. Computer program which when executed on a computer means is adapted to carry out the method steps of anyone of claims 18-19.